

[M^cLaury (W. M.)] *Dray*

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THE SENSES, FIVE OR SEVEN.

[A Paper read before the Academy of Anthropology, at the regular meeting, held at Cooper Union, March 5, 1889.]

MY esteemed friend Dr. Drayton, in his lecture on the "Evolution of a Sixth Sense," delivered in February last, before this Academy, has only confirmed in advance much that I have prepared to say on the seventh, or magnetic sense. I follow the classification of Sir William Thompson in describing the sense of temperature as the sixth sense.

As introductory I will quote from a paper I prepared and read on this subject a few years ago, before the Northwestern Medical and Surgical Society of this city.

"The five senses, seeing, hearing, smelling, tasting, feeling—these are called the gates to the soul, or the manifestation of soul through the material organs of the body. The question now arises, is soul an entity, or merely a product of material organs, generated by a latent electric force, by Baron Reichenbach termed *od force*. (From Odin the universal deity of the Scandinavian mythology, corresponding to Mercury of the Greeks.) Just here we may quote an ancient philosopher, who upon being asked what is mind, replied 'no matter,' and when the question was reversed, what is matter, his answer was 'never mind.' I am not sure we can reply any more sensibly now, and surely we could not more laconically. We know some of the qualities of mind, and some of the attributes of matter, but what more are we sure of. Without pretending to decide whether soul is an entity or not, we will proceed to consider the functions of the senses, known scientifically as five but proverbially as seven.

"FIRST.—The nerves of special sense involve the optic and olfactory nerves, and the lingual branch of the fifth pair."



"SECOND.—Nerves of general sensibility and the spinal nerves through their posterior roots include all affected by the sense of touch. The question of will power comes in here,—how far are our sensations independent of will? That which we call attraction or repulsion in inorganic matter, or selection in the lower organisms extended or developed is the same power that we call intelligent will or choice in higher animals. It is merely different in degree or amount, according as the parts are more or less differentiated or perfected. The facts of the original oneness of power and function in every part of the moner or cell body is very important and interesting. A man, being built up of cells, exhibits these properties, and in his early existence before his organs have been differentiated for their special use, he has only the simple sense of touch all over his body, and if any one of these organs becomes impaired it again has only the sense of touch; so an imperfect eye feels but does not see. It is this fact—that all parts of the living structure are primarily alike in regard to sensation, and that certain parts are specialized so as to modify it—which has led to seeing, hearing, smelling and tasting."

It is said that in some forms of disease, and in highly wrought nervous states, various parts of the body may become so intensely sensitive to light that they can see, and they may even hear, smell and taste. Thus, sensitives have been reported as being able to see with the backs of their heads or tips of their fingers. Without waiting to prove the truth of this assertion, we may seek for a foundation for it on the basis of common touch. Doubtless you each and all have experienced impressions that did not reach you through any of the five senses, the truth of which might be afterward confirmed by those senses—as, for instance, on entering a room in the dark, one often knows (instinctively, we say) that some one else is there, and this vivid impression is afterwards confirmed by sight or hearing.

As has already been suggested, all our senses, sight, hearing, smell and taste, are but modifications of touch or feeling. The eye feels in one way, the nose in another, and the tongue and papillæ of the mouth in another. It is all touch or feeling with different instruments. In the simple moner or protoplasmic cell this sense is exhibited

in one form only, there being no variety of structure, no special organ, but every part is capable of being specialized, and so modified as to become eye, ear, nose or tongue, or to partake of their properties.

To the two or more latent senses may be attributed many of the well-authenticated cases of second sight, spiritual manifestations and other phenomena of that character. For instance, J. Marion Sims appearing to Dr. Byrd at the hour of his death, saying to him, "James the Fourth is dead." Dr. Byrd was so disturbed that he could sleep no more, but walked the floor till morning, when a telegram announced the fact that James the Fourth (a name given to Dr. Sims by his friends on account of his being the fourth of that name in the direct line) had died just before Dr. Byrd was wakened by him. Occurrences of this kind are so frequent as to be beyond dispute. A still more noted instance is related of Swedenborg, whose home was at Stockholm. He was at one time the guest of a distinguished clergyman at Copenhagen. While engaged in earnest conversation with his host, Swedenborg suddenly became abstracted, rose, and walked the floor as though in great anxiety, going from the door to the windows and back again to the door. Upon the clergyman asking him the cause of such strange conduct, he replied that at that moment a great fire was raging in Stockholm, and was then within one door of his own residence, and that his own family was in danger. He was then asked, "How do you know this?" He answered, "I see it." He then described the buildings on fire, the efforts made to save them, noting the exact time the flames were subdued, and the progress of the fire arrested. The next mail brought letters and papers confirming the truth of his vision.

Just here, I will merely suggest a relation between light and sound. Both are considered in octaves, there being seven prismatic colors, and seven notes in the musical scale, the bass in each case completing the octave.

It is maintained that each sense has a representative or correlative science built upon it, as the science of Optics for vision, Harmony and Music for hearing, Architecture and Mathematics for touch, etc. As touch is the primary and basic sense, so Mathematics is the primary and basic science. This is merely suggestive as to how much farther they are correlative or analogous. Sir Wm.

Thompson claims that temperature, or the sense of heat and cold constitutes the sixth sense ; and he also suggests another, which he calls the magnetic sense, by which sensitive persons are made happy or miserable, when within the *aura* of others, by their polarity, according as they are attracted or repulsed. As evidence that the senses of touch and temperature are not identical, the sense of touch may be lost and that of temperature retained, or *vice versa*. There can be scarcely any discrimination between the painful sensations of heat and cold, as the Hottentot said when he touched ice, "It burns." Touch or sound, long continued, loses its effect, but when the pressure or sound ceases, our attention is attracted thereby. There are sweet and sour odors. We may, by the sense of smell, call up sounds, melodious or discordant ; and, by the same sense tints and colors may be perceived. This may be caused by association of ideas, and may be more easily experienced than described. The sense of smell is the most delicate of all the senses, and the particles making an impression on the olfactory nerve may be infinitesimal, and wholly unrecognizable by chemical tests, or by powerful magnifying lenses, or by any other means whatever. In short, where every other evidence of the substance of the thing may be gone, there still remains, apparently, the spirit of the departed thing manifesting itself to the sense of smell. Hence, some philosophers relegate this sense to the science of chemistry as its base, or relative sense, as hearing and seeing are to music and optics, in the domain of the relation between the senses and the sciences. For example, if a drop of the attar of roses be placed in a vial, and the vial be allowed to remain in a drawer for a period of ten or even twenty years, until every evidence of the substance has disappeared, and every chemical test fails to detect anything in the vial, a distinct perfume still remains. These particles must, of course, be infinitesimal, and this has been given as the boundary line between matter and spirit. This is beautifully referred to in one of Moore's melodies :

"Let Fate do her worst, there are relics of joy,
Bright dreams of the past, which she cannot destroy,
And which come in the night-time of sorrow and care,
To bring back the features that joy used to wear.

Long, long be my heart with such memories filled,
 Like the vase in which roses have once been distilled.
 You may break, you may shatter the vase if you will,
 But the scent of the roses will hang 'round it still!"

It is asserted that animals have senses that man has not. Many have senses more acute than man, as the sense of smell in the dog and fox, and that of sight in the eagle, the condor, and other birds.

Fish that live in continual darkness have no organ of vision, and those that begin life with an eye on each side of head, but habitually have one side exposed to light, after a time have both eyes on the side exposed, as in the halibut, the fluke and the flounder. By a change of functions feet may become hands or wings.

What Baron Reichenbach terms Odic power or Od force is the universal force pervading every thing animate and inanimate, organic and inorganic, and even the ethereal something, beyond our atmosphere, which is said to be negative Od. It embraces every form of magnetism. Its manifestations are closely connected with Od polar action in organic and inorganic nature, also between the primitive plastic order in matter, and the plastic growth of formations resulting in compound and complex forms, and may be designated by the words *vital force*.

Chambers' Cyclopedica classifies six senses, naming the first the magnetic sense, or the sense of organic life; second, taste; third, smell—these three are emotional—fourth, touch; fifth, hearing; sixth, sight—these three are intellectual. Sir Wm. Thompson maintains that the sense of temperature, or the sense of heat and cold, constitutes the sixth sense. The sensations of temperature have an obvious external cause of a sufficiently specific nature, but we are ignorant of their specific origin. Therefore, it remains a question that we cannot yet decide whether there are certain nerves especially appropriated to the impressions of temperature. Prof. Carpenter places this sense next to touch, and cites a case in which a man devoid of the sense of temperature, though having the sense of touch intact, while sleeping over a lime kiln had one of his legs burned off and was not aware of it till in the morning when attempting to walk his charred leg crumbled to ashes. It is through the sense of temperature that man and animals feel storms approaching even before they are

indicated by the barometer. It is found that the left hand is more sensitive to temperature than the right, whereas the right is much more acutely sensitive to touch. The sense of temperature recognizes the painful sensations of heat and cold, and by vigorous effort of the will-power we can withstand great extremes of both. If we examine and compare the effect of heat and cold upon water as upon our physical bodies they produce somewhat similar effects. Water dilates its bulk by heat. What seems extraordinary, by cold also. It is conceded that cold is better for health than heat; extreme cold produces tawny complexions, as is proved by the color of the inhabitants of the arctic as of the torrid zone.

Dr. George M. Gould, in a recent number of *Progress*, suggests an explanation of that peculiar faculty which enables birds and animals to find their homes from long distances by the exercise of their magnetic sense. In the phenomena of sleep we experience sensations that are not produced by any of the five senses. All the indications of sight and hearing, of feeling, smelling, tasting, are experienced in our dreams—but surely not through our physical organs. May this not be accounted for by the many manifestations of the magnetic sense? Statistics show that women dream more than men, that their dreams are more vivid and impressive. All our appetites—hunger, thirst and sex—may be relegated to the magnetic sense. Hunger has no more to do with touch than with sight or hearing.

Sensations produced by our appetites are the most intense that we are capable of receiving, and they produce an indelible impression upon the mind and character of the individual. The magnetic sense is the one in direct relation and contact with our intellectual and reasoning faculties. To the magnetic sense I would also refer the frequent and astounding phenomena known as sympathy. If we see a person injured, by sympathy we feel a sense of injury to the same part of our body. If we see one enjoying, we sympathize in the same joyful mood. If we see a cruel stroke aimed at another person, even a stranger, we shrink and fall back and act as though our own person was threatened, and through sympathy actually feel pain.

Blendings of health and disease are so gradual that no well defined limit can be drawn, as there is no one perfectly well and no one wholly diseased while alive. So it

seems as impossible to draw the exact line between physical health and disease as between sanity and insanity. And for the same reason that no one is perfectly sane in all that constitutes sanity, and no one is wholly insane. So physicians and alienists have to weigh the symptoms and give judgment according to the preponderance of evidence. The more we study the magnetic sense the better we are able to judge of health and disease, both physical and mental.

DREAMS.

The Bible, Aristotle, Plato, Zeno, Pythagoras, Socrates, Xenophen, and many others, have all expressed belief in the prophetic character of dreams. The ancients recognize seven distinct methods of divining and prophesying. First, auguries, or by the clouds and winds; second, auri-spicy, or by the flight of birds; third, necromancy, by the viscera of birds and animals; fourth, astrology, by the positions and motions of the stars—also their brilliancy and magnetic influence; fifth, geomancy, or magnetism of the earth, read and interpreted by mystic circles, dots and points, marked down at random by the operator, but swayed and controlled and directed by the invisible spirit of the earth planet; sixth, demonology, or familiar intercourse with good or evil spirits. The trial, condemnation and punishment of individuals so fraternizing was the chief employment of the Church Courts of the middle Ages, notably the cruel trial and punishment of the Albigenses, the Waldenses and Knight Templars. It was on charges of this kind that Joan of Arc was condemned to the stake, and burned alive by the order of the French Bishop, Beauvais, on May 30, 1431—and by the same infallible church she has been canonized as a saint in the present century.

We would say, in regard to Joan, that at the nubile age, she became clairvoyant and clairaudient; that is, her latent magnetic sense became active and she became vividly conscious that she possessed such a sense with all its powers and capabilities and used them patriotically for the delivery of her nation from English invasion and oppression.

The seventh method of divining was by dreams, the phenomena of which may largely come under the scientific study and investigation of the seventh or magnetic sense.

Much of the phenomena of sleep and dreaming is closely allied to the magnetic sense. Somnambulists walk, talk, read and write without conscious use of any of the five senses.

In the state known as trance the only sense active is the magnetic sense. Reverie differs from sleep and from trance and may be said to be partaking somewhat of each of these. Reverie is, however, a condition produced by the will in which all the physical senses are commanded to remain temporarily inactive, but in reverie as in trance the magnetic sense is active. We are well aware that when deprived of one sense the loss is partly made up by the other senses which become more acute. So, when all the senses are dormant, as in sleep, the magnetic or seventh sense is so intensely acute that ideas and thoughts that cannot be reached while awake may be grasped while the other senses are asleep. Coma, somnambulism, trance and ecstasy may properly be regarded as phases of sleep, but more like the hypnotic state than normal sleep.

McNish, in his "Philosophy of Sleep," says of Cabanis that he often saw clearly in dreams the bearings of political events that baffled him when awake, and that Condorcet, when engaged in deep and complicated calculations, was frequently obliged to leave them in an unfinished state and retired to rest when the results to which they led were unfolded to him in his dreams. Sir Benjamin Brodie mentions a chemist who contrived apparatus for his experiments more than once while dreaming; and also a mathematician who solved problems while asleep that baffled all his efforts in his waking hours.

He also mentions the case of a lawyer who had revealed to him while asleep a plan which he adopted with success in an important legal contest. Carpenter, in his physiology, bears ample evidence of this phenomena of increased mental power during sleep. Dr. Benjamin Franklin bears evidence of the same power.

Trance is incited by fear. The sudden alarm of fire in a church or theatre may in a sense entrance the entire audience, making them do the very things they would not do in their normal condition. Animals may also become entranced by fear and instead of fleeing from a threatened danger, run right into it. It is rarely the subjects of trance commit crime while in that state, unless it is suggested,

and then the suggestion sometimes produces a mental shock that restores the entranced one to a normal condition. Dr. George M. Beard says that mediums instead of being entranced, entrance their deluded victims. Few persons writing on trance can see but one side of it. Mr. Grimes and Dr. Carpenter evidently saw both sides of it, but very few see it in all its many-sided aspects, especially so as to concede to some of those entranced the possibility of mind or thought reading.

A curious case of clairvoyance occurred many years ago in my native town. The farmers of that section made an annual journey in the fall to Catskill, the nearest market town, some seventy miles distant. This entire journey occupied a week in going and returning. Mr. P—— left home with his farm team and farm products on Monday morning; he left his wife, three sons and two daughters at home. Friday evening, as the family were sitting around a blazing fire, eating nuts and throwing the shells into the flames. Levi, the second son, a pale, anemic boy of sixteen, became abstracted and began to laugh hysterically. His mother asked the cause of his merriment. He replied, "I am laughing at father, I see him now chasing a barrel down a hill." The family ridiculed the idea. He persisted in saying, "I see him, I do see him; now he has stopped the barrel and put a rail under it; now he is turning the team and driving towards the barrel; now he is rolling it up the rail and putting it into the wagon." The father reached home Monday night, and while he was taking his supper his wife innocently asked him why he was running down hill after a barrel Friday night. "Why," he exclaimed, "how did you know it?" "Now," she queried, "were you running down hill after a barrel?" He replied, "as I was driving up Pine Hill the end board got loose and a barrel of flour went out, and I was afraid it would roll down the bank and that I would never be able to get it, so I ran after it and stopped it with a fence rail. Then I turned the team, got below it, and loaded it in. But how did you know this?" he inquired, and he could hardly be made to believe that Levi had seen it and reported it just as it had occurred at the time.

Many things deemed miraculous may scientifically be accounted for by the careful study of the phenomena of the magnetic sense. There is nothing infernatural, there is

nothing supernatural. There is a sufficient cause in nature for every event that ever occurred, yet this does not destroy faith. Science is faith without superstition. A faith that knows what to receive and what to reject.

Abercrombie gives an account of a lawyer who had been diligently studying an intricate case for several days, was observed by his wife after retiring, late at night to rise in his sleep, go to his desk, write a long paper, then return to bed. In the morning he told his wife that in a dream he had elucidated the intricate features of the case in hand, but could not now recall the more important points. She directed him to his desk where to his surprise he found the whole case completely and satisfactorily written out.

Mr. Braid, of London, cites a case of a hypnotized patient in which there was such an exaltation of the sense of smell that he readily recognized the owner of a glove handed to him from an assembly of thirty persons.

We are apt to conclude that the sense of smell is the least important of any, but we should not underrate its importance. As we have seen, it is really the most acute, and can detect substances beyond the reach of chemical analysis. Odors, too, have a powerful influence upon the brain and nervous system. Hence, the application of sedatives to the olfactory nerves, in cases of undue nervous excitement, to quiet more quickly than if administered in any other way. Hence, the use of stimuli in this way in case of syncope. The cases of the exaltation of the sense of touch are numerous. There are also abundant evidences of the exaltation of the sense of temperature.

Trance may be self-induced, and unlike several other abnormal conditions, may be indulged without injury to health or the shortening of life. Acts, which in the trance state are logical, coherent and consistent, will in dreams be extravagant and absurd. The brain does not act as a unit either in the active condition of wakefulness or sleep. Different parts and organs act stimulating different faculties and emotions with different degrees of force. Where cerebral activity is harmoniously diffused, as in the normal wakeful state, man is said to be under control of will. And by a constant watchfulness and effort of the entire ego we may do much toward keeping up this harmonious activity, as also by effort we may direct this to special organs

and their functions and faculties. Cases are numerous where people spend half their life in trance, but what they learn and know in the normal state is entirely lost and forgotten in the trance state. See the case of Miss Fidelia X——, reported by Dr. Axam; also of Miss Reynolds, of Pennsylvania, fully narrated by Dr. Jerome Kidder in his book on "Vital Resources." She was the daughter of a clergyman; in her normal condition she was sedate, pensive and almost melancholy; slow and sensible in her intellectual character, but almost destitute of imagination, whereas in the trance state she was gay and lively, full of fun and fond of social life. Dr. A. K. Mitchell reports the case of a young girl who in her normal condition, or in the condition of childhood, was slow, indolent and querulous, but in trance life was quick, energetic and witty, even vivacious. The history of these cases portrays almost as great contrasts in character, as that delineated by "Dr. Jekyll and Mr. Hyde."

Reverie is commonly induced by the will of the subject. It is neither dream nor trance, but between the two. The five senses are dormant and inactive. The subject of reverie becomes insensible to surrounding objects. People betake themselves to reverie when listening to a dull sermon or when they try to study a dry task in which they take no interest. Waking dreams result essentially from the voluntary surrender of the will and attention. McNish observes that young people of vivid, sanguine temperament have waking dreams almost every morning and night—Nearly every one has a longer or shorter period of reverie before falling asleep. In this state religious devotees imagine they hold converse with saints, angels and gods, and that they combat evil spirits, demons and devils; they also have celestial visions so vivid that they cannot convince themselves that they are not real.

I have now under treatment a young man 19 years old, of fair intelligence, in whom defects in education have induced an almost unconquerable and constant absence of mind. He sits for a whole day without speaking, yet the play of his countenance and occasionally laughter shows that a multiplicity of thoughts are passing through his mind. He will often begin to speak but forgets what he is saying before he completes the sentence. In this condition of reverie, if we may so term it, he certainly does not

suffer, but seems happy. By strict attention to his diet, and exercise, having everything systematized and a little tonic for nerve and muscular tissue, he is getting well.

If all the appetites, passions and powers, not referable to any of the five or six senses, may be scientifically as well as traditionally classed, as belonging to a seventh or magnetic sense, then we may study it with reference to our intuitional and intellectual capacities and powers, and by the mere recognition of such a sense we may greatly increase mental development and add materially to the knowledge and science of the day.

This seventh or magnetic sense is most prominently set before our minds by the sexual magnetism. This is the most potent stimulus accessible to our race. By a wise development and a healthy exercise of the love nature there is scarcely a limit to the capacities for generating health of body and mind. The physiology of the whole passion of love has not yet been written. That it generates force and increases mental and physical power is undoubted. The Creative Power bestowed this boon to man, not alone for the perpetuation of the race by the generating of new beings, but to be rightly understood and utilized by the healthy growth and perfect development of the mind and body of the man and woman.

Sir Wm. Hamilton's idea in terming the seventh sense the magnetic sense, had reference to the emotional in our natures; that stimulus being the source of all force, both mental and physical. All affection and love of every kind, whether paternal or fraternal, conjugal or sexual, platonic or deific, is based upon and developed from this seventh or magnetic sense. Consequently it comes before us as a very important consideration, and if studied with natural law as our guide, cannot fail to compensate all who will earnestly give it their attention; so it seems that moral science and philosophy are based upon and are correlative with the seventh sense.

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